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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,326	06/15/2005	Hendrik Van Houten	NL 021377	9278

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EXAMINER

YODICHKAS, ANEETA

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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05/11/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,326	Applicant(s) VAN HOUTEN, HENDRIK	
	Examiner Aneeta Yodichkas	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,522,616 B1 to *Magnitski et al.*

As to **claim 1**, *Magnitski* discloses an optical information storage unit comprising: an information layer (10) comprising a plurality of data areas (33), a first side wherein light from a light source (32) enters the information layer, and a second side separated from the first side, wherein light emitted from the information layer (10) is emitted from the second side, each data area being arranged to emit light when illuminated by light at a predetermined wavelength (Fig. 2 and 3, column 3, lines 2-10, 46-57, where the information layer is card (10), light enters from the side with the photodiodes (32) and exits on the other side, and a data area, or frame (33) is illuminated by the light); and a readout layer (34) separated from the information layer (10) so that the readout layer (34) and the information layer (10) are not in contact with each other, the readout layer comprising a plurality of optical apertures (35), wherein each of the plurality of optical apertures (35) are separated from each other of the plurality of optical apertures by an

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optically opaque portion, each optical aperture being arranged to image substantially only the near field of light emitted from a respective data area (Fig. 3, column 3, lines 46-57, where the readout layer is lenslet card (34), which has a several apertures, or lenslets (35), that are separated from each other by an opaque sections, where the opaque sections are the areas between lenslets (35) that do not transmit or intercept light as light is only transmitted or intercepted through lenslets (35), and each aperture emits light from a data area from card (10)).

As to **claim 2**, *Magnitski* discloses the information storage unit, wherein both the readout layer (34) and the information layer (10) are planar and substantially parallel, the separation between the information layer (10) and the readout layer (34) being less than the wavelength of emitted light (Fig. 3, column 3, lines 46-57, column 4, lines 39-54, where the readout layer, or lenslet card (34) and information layer, or card (10), are parallel and planar and may be moved along the X, Y and Z axes in order to make the distance less than a wavelength of emitted light).

As to **claim 3**, *Magnitski* discloses the information storage unit, wherein the information layer (10) is movable within a plane substantially parallel to the readout layer (34) (Fig. 3, column 3, lines 46-57, column 4, lines 39-54, where the readout layer, or lenslet card (34) may be moved in the X, Y and Z directions).

As to **claim 4**, *Magnitski* discloses the information storage unit, wherein said information layer (10) has a data areas per unit area, and said readout layer (34) has b optical apertures (35) per unit area, where $a > b$ (Fig. 2 and 3, column 3, lines 2-10, 46-57, where the information layer (10) has more data areas per a unit area as it has more

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layers of information than the number of apertures, or lenslets, on the readout layer (34)).

As to **claim 5**, *Magnitski* discloses the information storage unit, wherein each data area comprises an optical aperture, the light emitted from each data area when illuminated corresponding to light transmitted through the aperture (Fig. 3, column 3, lines 46-57, where the light from the data areas, or frames (33) emit through the apertures on lenslet card (34), each data area (33) corresponding to an aperture (35)).

As to **claim 6**, *Magnitski* discloses the information storage unit, wherein each data area comprises a reflector, the light emitted from each data area comprising light reflected from the reflector when the respective data area is illuminated (Fig. 2 and 3, column 3, lines 25-30, where the information layers (22) in card (10) are all reflective and reflect light when illuminated).

As to **claim 7**, *Magnitski* discloses the information storage unit, wherein each area comprises a fluorescent material, the light emitted from each data area comprising the light emitted by the material as it fluoresces, the illuminating light acting to excite the fluorescent material (Fig. 2 and 3, column 3, lines 38-57, where the card, or information layer (10), has fluorescent material and when the information layer (10) is illuminated, the fluorescent material is excited).

As to **claim 8**, *Magnitski* discloses the information storage unit, wherein an optically transmissive material is placed between the information layer (10) and the readout layer (34), the optically transmissive material having a refractive index greater than 1 at the wavelength of the emitted light (Fig. 3, column 3, lines 46-57, where the

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optical transmissive material is air between the information layer (10) and the readout layer (34) and has a refractive index greater than 1).

As to **claim 9**, *Magnitski* discloses the optical information storage unit, wherein at least one of said data areas is modifiable by a predetermined process so as to alter the optical characteristics of the data area such that the intensity of light emitted by the data area when illuminated will be altered (Fig. 3, 7 and 8, column 5, lines 23-40, where based on how card (10) is manufactured, the different data areas can have different intensities).

As to **claim 10**, *Magnitski* discloses the information storage unit, the unit comprising: a light source (31) arranged to provide light at the predetermined wavelength for illumination of the data areas (Fig. 3, column 3, lines 46-57, where the light source is the matrix of photodiodes (31); and an optical sensor (37) comprising a plurality of light sensing areas, the optical sensor being arranged to detect the near field of light imaged by each respective optical aperture (Fig. 3, column 3, lines 46-57, where the optical sensor is photosensor matrix (37)).

As to **claim 11**, *Magnitski* discloses limitations similar to those in claim 10 above.

As to **claim 12**, *Magnitski* discloses the reader, comprising writing means arranged to controllably alter the optical properties of the data areas, so as to write data to the data areas (Fig. 9, column 5, lines 41-49, where contact photolithography technology is used write data into the data areas).

As to **claim 13**, *Magnitski* discloses the reader, comprising movement means arranged to move the position of the information layer (10) relative to the position of

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both the readout layer (34) and the optical sensor (37) (Fig. 3, column 4, lines 39-54, where the information layer, or card (10) can be moved in the X, Y and Z directions relative to the position of the readout layer (34) and the optical sensor (37)).

As to **claim 14**, *Magnitski* discloses an information processing system comprising at least one of: an optical information storage unit (100 (Fig. 3, column 3, lines 46-57, where the information storage unit is card (10)).

As to **claim 15**, *Magnitski* discloses limitations similar to those disclosed in claim 1 above. In addition, *Magnitski* discloses illuminating at least one data area with light at the predetermined wavelength (Fig. 2 and 3, column 3, lines 46-57, where the data area, or frame (33), is illuminated with the light from the matrix of photodiodes (31)); and detecting the optical intensity of light imaged by the respective optical aperture (35) that corresponds to the illuminated data area (33), wherein the act of illuminating comprises an act of positioning the light such that the light does not pass through the aperture (35) prior to illuminating the data area (33) (Fig. 3, column 3, lines 46-57, where the photosensor matrix (37) detects the intensity of the light and the light from the photodiode (32) illuminates the data area, or frame (33) before passing through the aperture, or lenslet (35)).

As to **claim 16**, *Magnitski* discloses the method of reading information from an optical information storage unit, the method further comprising an act of: moving the information layer (10) within a plane substantially parallel to the readout layer (34), such that an optical aperture (35) previously imaging a first data area images a second, different data area within the information layer (Fig. 3, column 4, lines 39-54, where the

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information layer (10) is parallel to the readout layer (34) and can be moved in the X, Y and Z directions such that an aperture previously imaging one data area will image another data area).

As to **claim 17**, *Magnitski* discloses limitations similar to those disclosed in claim 1 above.

As to **claim 18**, *Magnitski* discloses limitations similar to those disclosed in claim 1 above. In addition, *Magnitski* discloses selectively modifying at least one data area (33) so as to emit light at a predetermined intensity when illuminated, the predetermined intensity being indicative of the information stored by the respective data area (Fig. 2 and 3, column 3, lines 46-57, where the data area, or frame (33), is illuminated with the light from the matrix of photodiodes (31)), wherein the act of selectively modifying comprises an act of positioning an illuminating light source (32) such that light from the light source does not pass through the plurality of optical apertures (35) prior to illuminating the data areas (33) (Fig. 3, column 3, lines 46-57, where the photosensor matrix (37) detects the intensity of the light and the light from the photodiode (32) illuminates the data area, or frame (33) before passing through the aperture, or lenslet (35)).

Response to Arguments

Applicant's arguments filed 2/4/10 have been fully considered but they are not persuasive.

First Applicant argues with respect to claim 1, on pages 9-11, lines 14-9, that *Magnitski* fails to disclose, "the readout layer comprising a plurality of optical apertures,

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wherein each of the plurality of optical apertures are separated from each other of the plurality of optical apertures by an optically opaque portion". Examiner disagrees as *Magnitski* discloses "the readout layer comprising a plurality of optical apertures, wherein each of the plurality of optical apertures are separated from each other of the plurality of optical apertures by an optically opaque portion" (Fig. 3, column 3, lines 46-57), where the readout layer is lenslet card (34), which has a several apertures, or lenslets (35), that are separated from each other by an opaque sections, where the opaque sections are the areas between the lenslets (35) that do not transmit or intercept light as light is only transmitted or intercepted through the lenslets (35).

Second Applicant argues, on page 11, lines 10-15, that claims 1, 15 and 17-19 are patentable over *Magnitski*. Examiner disagrees for the reasons stated above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aneeta Yodichkas whose telephone number is (571) 272-9773. The examiner can normally be reached on Monday-Thursday 8-5, alternating Fridays, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A.Y./
5/6/10

/Wayne Young/
Supervisory Patent Examiner, Art Unit 2627